

Application No. 10/020,848
Amendment dated December 3, 2003
Reply to Office Action of November 17, 2003

REMARKS

Claims 1-5, 8, 11-15, 18, 21-25 and 28 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,636,910 to Kung et al. (hereinafter, "Kung"). By this amendment, claims 1, 11 and 21 are amended without adding any new subject matter. In addition, new claims 31 and 32 are added. Specifically, claim 1 calls for a method including determining whether the performance state of the processor is going to be a lower performance state or a higher performance state. Support for this limitation may be found in Applicant's specification on page 8, lines 15-28 and on page 9, lines 1-4.

However, Kung fails to teach or suggest determining whether the performance state of the processor is going to be a lower performance state or a higher performance state. In the Kung reference, pulses are used so that the peripheral processor can operate according a predetermined first operation velocity. A peripheral device including terminal control circuitry in the terminal sensor detects whether the temperature has exceed a first predetermined temperature. In that case, the thermal control circuitry produces a first output to the pulse circuitry so as to reduce the frequency of the pulse signals to a predetermined second frequency. This reduces the operating velocity of the peripheral processor to a second operating velocity. See the Kung reference abstract. Thus, there is no determination as to the performance state of the processor to be a lower or a higher performance state is made.

Accordingly, as amended, claim 1 is now in condition for allowance, which is respectfully requested of the Examiner. In addition, the dependent claims, which depend from an allowable independent claim 1, are also patentably distinguishable over the cited art of record. The Examiner is respectfully requested to withdraw the § 102 rejection of claim 1 and the claims depending therefrom because claim 1 is not anticipated by the Kung reference. The Applicant respectfully submits that there is no teaching in the Kung or any of the references whether considered together or separately, as to changing first the processor's frequency or the

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processor's voltage based on the performance state of the processor. For these reasons alone, independent claims 11, 21, and the corresponding dependent claims are patentable. *(Note: claimed)*

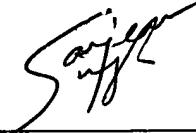
New claim 31 includes the limitation of selectively changing the processor's frequency and then the processor's voltage when the performance state of the processor is going to be the lower performance state and changing the processor's voltage and then the processor's frequency when the performance state of the processor is going to be the higher performance state. There is no teaching in the cited art where an order is to be followed as to changing the processor's frequency or voltage let alone based on the performance state of the processor. For example, on transitions to a lower performance state (due to the processor getting hotter), the processor's frequency is reduced before reducing the processor voltage. Likewise, on transitions to a higher performance state (due to the processor cooling down), the processor's frequency is not increased until the voltage is changed to a higher level. This ensures that, for example, the performance change would lag the interrupt event if the interrupt event were generated upon the voltage change. Moreover, the processor's performance, as seen by the operating system, will be reduced immediately.

Claims 6-7, 10, 16-17, 20, 26-27 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kung and further in view of Inoue (EP 1085399 A1). Claim 6 calls for setting up a periodic timer, claim 7 calls for monitoring a processor temperature at periodic intervals, and claim 10 calls for using hardware controlled throttling. Based on the reasons set forth above with respect to claims 1, 11, and 21, these claims 6, 7, and 10 are considered in condition for allowance. Accordingly, none of the combinations of claims 6, 7, and 10 read on the cited art. In this manner, the Examiner is respectfully requested to reconsider the § 103 rejection of claims 6-7, 10, 16-17, 20, 26-27 and 30. That is, even if combined these two references do not render either claim 6, 7, or 10 *prima facie* obvious. The Examiner is respectfully requested to reconsider all pending claims.

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In view of these amendments and remarks, the application is now in condition for allowance and the Examiner's prompt action in accordance therewith is respectfully requested.

Respectfully submitted,



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